

History and examination of respiratory system

History

- Taking a careful clinical hx is the corner stone of diagnosis

History

■ Components of Hx

■ Personal Hx

- Name

- Sex

- Age

- Residence

- Occupation

- Education level

- Personal habits of medical importance

- Smoking, alcoholism, others

History

■ Main complaints

- The most important complaints brought pt to physician
- should be in pt words(not medical terms)

History

■ History of present illness

-story of Pt

-Analysis of complaints

Characteristics of specific symptoms should be elicited, as follows.

Cough

- Quality (for example, dry, hacking, loose, productive)
- Severity
- Timing (for example, at night, with exercise, in cold air, inside or outside)
- Aggravating/relieving factors

History

■ Sputum

- — Colour
- — Amount (in teaspoons, tablespoons, cups)
- — Consistency
- — Purulence, odour, foul taste
- — Time of day worse

■ Hemoptysis

- — Amount of blood
- — Frank blood or mixed with sputum
- — Association with leg pain, chest pain, shortness of breath

History

- **Shortness of Breath**

- — Exercise tolerance (number of stairs client can climb or distance client can walk)
- Shortness of breath at rest
- Inability to converse in phrases or complete sentences
- Marked increase in respiratory effort, use of accessory muscles or retraction
- Orthopnea (number of pillows used for sleeping)
- Association with paroxysmal nocturnal dyspnea (waking up out of sleep acutely short of breath;
 - attack resolves within 20 to 30 minutes of sitting or standing up)
 - — Timing
 - — Severity (for example, marked tachypnea)

History

■ Chest Pain

- — Onset (sudden or gradual)
- — Location
- — Radiation
- — Referral pattern
- — Quality
- — Timing
- — Severity
- — Aggravating and relieving factors
- — Associated symptoms

History

■ Other symptoms of involved system

Wheezing, ll oedema ,

■ Other Associated Symptoms

- Cyanosis
- Fever
- Fatigue
- Anorexia
- Diaphoresis
- Weight loss

History

Symptoms of other physiological DDX

- Lower limbs oedema
- .renal diseases(dark urine, eye puffiness)
- .CLD(jaundice,abd distension,haemoptysis)

Symptoms of anatomical dx (pain,sweeling)

- .Rt hypochondrial pain (hepatobiliary system,renal ,lung,gastric,..)

History

Risk factors, precipitating events

- .Acute SOB, susp PE

DVT symptoms (leg pain, swelling)

Risk of thromboembolism (immobilization, travel, surgery, CT diseases symptoms (arthritis, rashes, abortion in female))

- .jaundice

(risks of viral hepatitis (drug use, blood transfusion, ..))

Complications

PE (hypotension, syncope, loss of consciousness)

History

Review of others systems

Common symptoms of other systems

Past medical and surgical hx

.Similar attacks ,chronic diseases as dm ,htn ,hx of old TB,rheumatological or renal disease

.Surgical hx (lobectomy),

.medications

Vaccinations

History

Family History (Specific to Respiratory System)

- Others at home with similar symptoms
- Allergies, hypersensitivity
- Asthma, lung cancer, TB, cystic fibrosis
- Heart disease

History

Social History (Specific to Respiratory System)

- Exposure to secondhand smoke
- Occupational or environmental exposure to respiratory irritants (for example, mining, forestfire fighting)
- Exposure to pets
- Crowded living conditions
- Poor personal or environmental cleanliness
- Institutional living
- — HIV risks

Examination

■ General Appearance

- — Acutely or chronically ill
- — Degree of comfort or distress
- — Degree of sweatiness
- — Ability to speak a normal-length sentence without stopping to take a breath
- Colour (for example, flushed, pale, cyanotic)

Examination

- Nutritional status (obese or emaciated)
- — Hydration status
- Surroundings (tissues, oxygen masks,
- Sputum
 - White mucoid
 - Chronic bronchitis
 - Purulent, yellow, green
 - Suppurative lung syndrome
 - Red
 - TB, Ca lung, PE
 - Frothy pink
 - Pulmonary edema

Examination

- **Vital Signs**
- — Temperature
- — Pulse
- — Pulse oximetry
- — Respiratory rate
- Normal (12-18)
- — Blood pressure

Examination

- **Hands examination**
- **Central Cyanosis**
 - COPD, Asthma
 - Pulmonary fibrosis
 - Pneumonia, PE
 - A/V malformation
 - Cardiac Rt to Lt shunts
- **Peripheral cyanosis**
 - Cold weather
 - Low COP

Examination

■ Clubbing of the fingers and toes

- Bronchiectasis
- Ca lung
- Lung abscess
- Pulmonary fibrosis
- Asbestosis
- Cystic fibrosis

Examination

- **Hands examination**
- Hypertrophic pulmonary osteoarthropathy
 - Ca lung

Signs and Symptoms of Respiratory Diseases

■ Hands examination

-Tremors

- Fine
- Flapping

B2 agonist

CO2 retention

Examination

- **Head & neck**
- **Horner's syndrome**
 - Ptosis
 - Enophthalmos
 - Miosis
 - Anhydrousis(Apical lung ca)

Examination

- **Head and neck**

- **Face**

- SLE (Butterfly rash)
- Sarcoidosis (Lupus pernio)

Examination

- Head and Neck
- JVP
 - CHF (Pulsatile)
 - SVO (Non pulsatile)

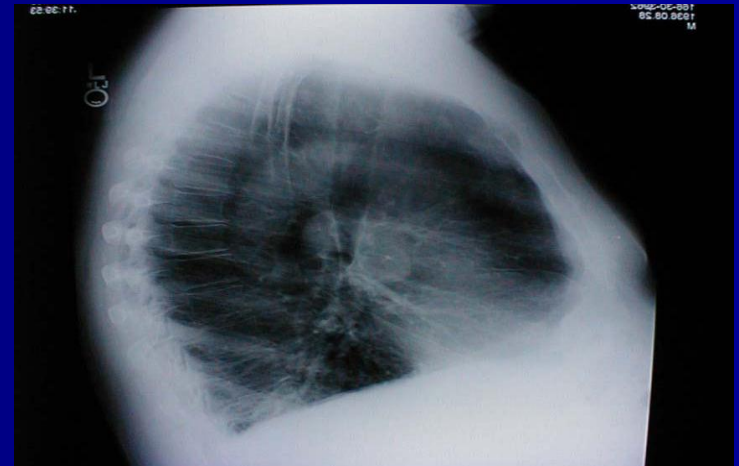
Examination

- Head and Neck
- Lymph nodes
- Fundi
Papilledema
- Lower limbs
- Oedema, clubbing, erythema nodosum



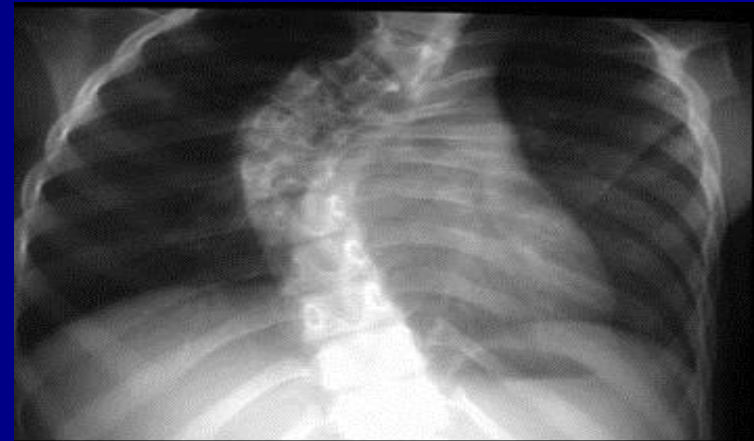
Examination

- Chest examination
- INSPECTION
- Shape
 - Barrel shape (COPD)



Examination

- Chest examination
- Shape
 - Kyphoscoliosis
 - Pectus excavatum



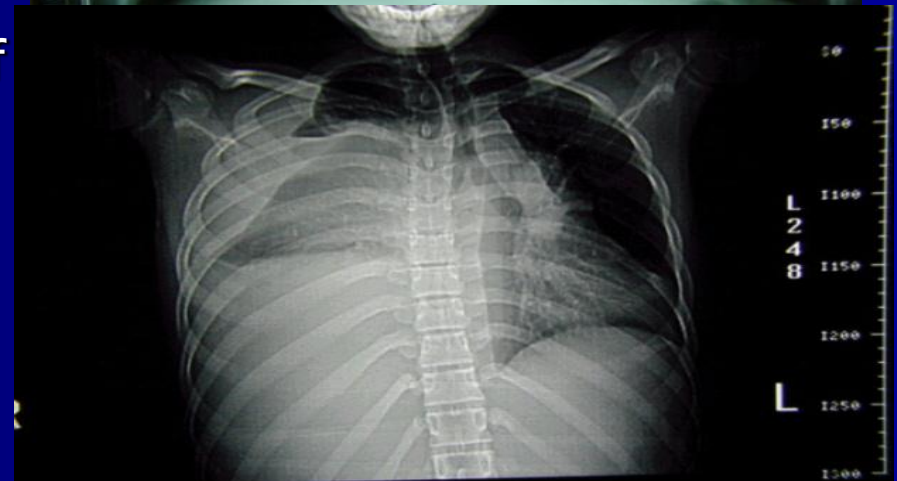
Examination

Inspection

- Movement of chest (symmetry)
 - _ Bulging or depression
- Rate, rhythm and depth of respiration
- Use of accessory muscles (sternocleidomastoid muscles)
- Intercostal/substernal indrawing
- Evidence of trauma
- Chest wall scars
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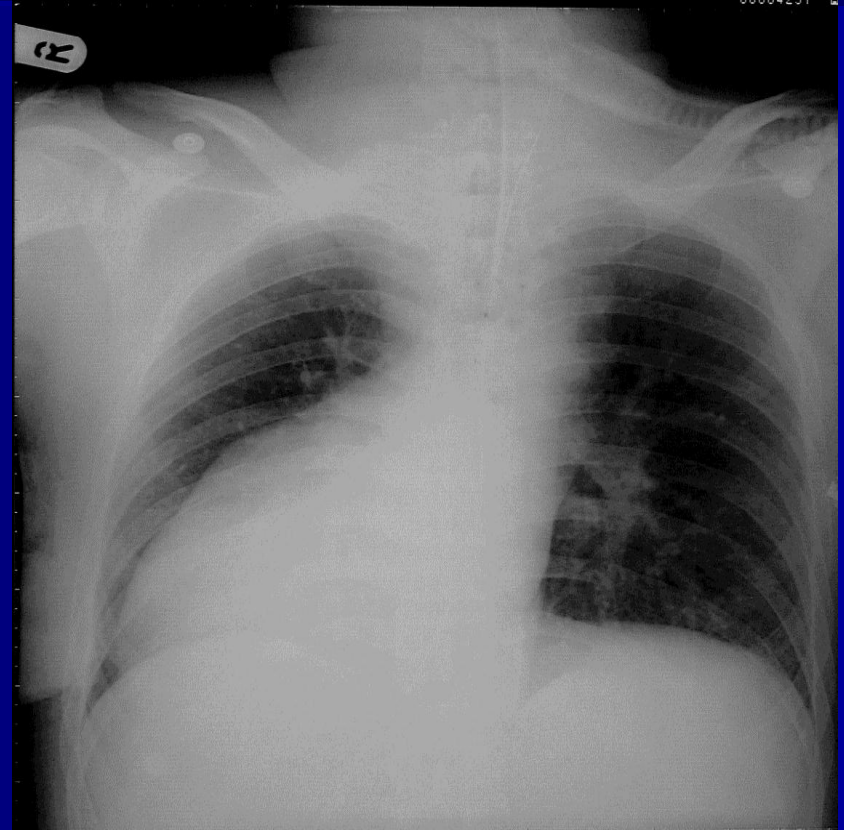
Examination

- Chest examination
- palpation
 - Position of the trachea
 - Shifted to the side of the lesion
 - Fibrosis
 - Collapse
 - Shifted away
 - Pleural effusion
 - Tension Pneumothorax



Examination

- Chest examination
- palpation
 - Cardiac apex (dextrocardia)
 - Chest expansion (n=3-5cm)
 - Tactile Vocal fremitus
 - Increased
 - Consolidation
 - Decreased
 - Pleural effusion
 - Collapse



Examination

- Chest examination
 - Percussion
 - Decreased
 - Pleural effusion (stony dull)
 - Consolidation (dull)
 - Collapse
 - Fibrosis
 - Increased
 - Pneumothorax & emphysema

Examination

- Auscultation
 - Breathing sounds
 - Vesicular
 - Bronchial
 - Aegophony
 - Whispering pectrology

Examination

■ Factors important in distinguishing sounds and creating differential diagnosis

- Location
- Timing
 - Inspiratory, expiratory, or both
 - Same cycle vs varying cycle of breathing
- Monophonic vs polyphonic
- Low pitch vs high pitch








Examination

- **Auscultation**

- Decreased breath sound
 - Pleural effusion
 - Collapse/Atelectasis
 - Pneumothorax & Obesity
- Increased breath sound
 - Consolidation
 - Cavity
 - Top of pleural effusion

Examination

Qualities of normal breath sounds

Breath sound	Quality	I:E ratio	Location
Tracheal 	Harsh, high-pitched	I = E	Above supraclavicular notch, over the trachea 
Bronchial 	Loud, high-pitched	I < E	Just above clavicles on each side of the sternum, over the manubrium 
Bronchovesicular 	Medium in loudness and pitch	I = E	Next to the sternum, between scapulae 
Vesicular 	Soft, low-pitched	I > E	Remainder of lungs 

Examination

- **Bronchial breath sounds**

- • Also known as tubular breath sounds

Sound moving through a tube or straw

- NORMAL when heard over the manubrium

- NOT NORMAL when heard anywhere else

Examination

■ Noisy breathing

■ Wheezing

- Low pitch wheeze = rhonchi

■ Stridor

• Crackles (rales), creptations

■ Grunting

■ Pleural rub

Examination

■ Localizing sounds

- Inspiratory sounds= EXTRAthoracic obstruction
 - Eg primarily stridor
- Expiratory sounds= INTRAthoracic obstruction
 - Eg primarily wheezing

Examination

■ What is “wheezing?”

- Defined as a continuous musical expiratory sound caused by INTRAthoracic airway obstruction
- Produced by oscillation of opposing walls of an airway that are narrowed to the point of closure

Examination

■ Auscultation

Wheeze (Rhonchi)

– Bilateral

- Asthma, COPD, LVF

– Unilateral

- FB
- Lung cancer
- Mucous plug

Examination

■ Auscultation

– Crackles (crepitations)

■ Fine

– Pulmonary fibrosis

■ Coarse

– Bronchiectasis

– Pneumonia

– Pulmonary edema

■ Friction rub

Infection, Infarction, tumor

■ Whispering pectori(consolidation)

Examination

- **Examination of systems related to respiratory disease**
 - **CVS**
 - P2, Cor pulmonale, CHF
 - **Abdomen**
 - Hepatosplenomegaly
 - **Renal**
 - Goodpastures syndrome

Examination

Examination of systems related to respiratory disease

Locomotor

- Rheumatoid arthritis, SLE, PAN, Bone pain

CNS

- CO₂ retention
- Epilepsy
- Cranial nerve palsy

Examination

- Examination of systems related to respiratory disease

- Skin

- erythema nodosum,
- vasculitis
- heliotropic rash

History and examination of respiratory system

Thank you

Signs and Symptoms of Respiratory Diseases

- Suggested Text book to read
 - McLeod's signs and symptoms